

# KENWOOD AVENUE TRAFFIC CALMING STUDY PUBLIC OPEN HOUSE

Town of Bethlehem  
Tuesday, October 10, 2023  
Bethlehem Town Hall





**BETHLEHEM SAFE STREETS . COM**

# INTRODUCTIONS

## *PROJECT DEVELOPMENT TEAM*

### Town of Bethlehem

|                     |                                     |
|---------------------|-------------------------------------|
| David VanLuven      | Town Supervisor                     |
| Robert Leslie, AICP | Town Director of Planning           |
| Paul Penman, P.E.   | Deputy Commissioner of Public Works |
| Eric Johnson, P.E.  | Town Engineer                       |
| Nate Owens, AICP    | Senior Planner                      |

### CHA Consulting, Inc.

|                     |                  |
|---------------------|------------------|
| Joe Cimino, P.E.    | Project Manager  |
| Michael Hurtt, P.E. | Highway Engineer |
| Juvena Ng           | Traffic Engineer |



# TONIGHT'S AGENDA

- Project Update/Status
- Summary of Comments Received and Potential Proposed Solutions
- Next Steps
- Open House



# TONIGHT'S AGENDA

- **Project Update/Status**
- Summary of Comments Received and Potential Proposed Solutions
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- Open House



# PROJECT UPDATE / STATUS



Segment 1: Delaware Avenue to Elsmere Avenue – 2/3 miles  
Residential, Business, School, Church

Segment 2: Elsmere Avenue (NYS Rte 335) to the Delmar Bypass (NYS Rte 32) – 1-1/2 miles  
Suburban Residential, Recreational, Farm



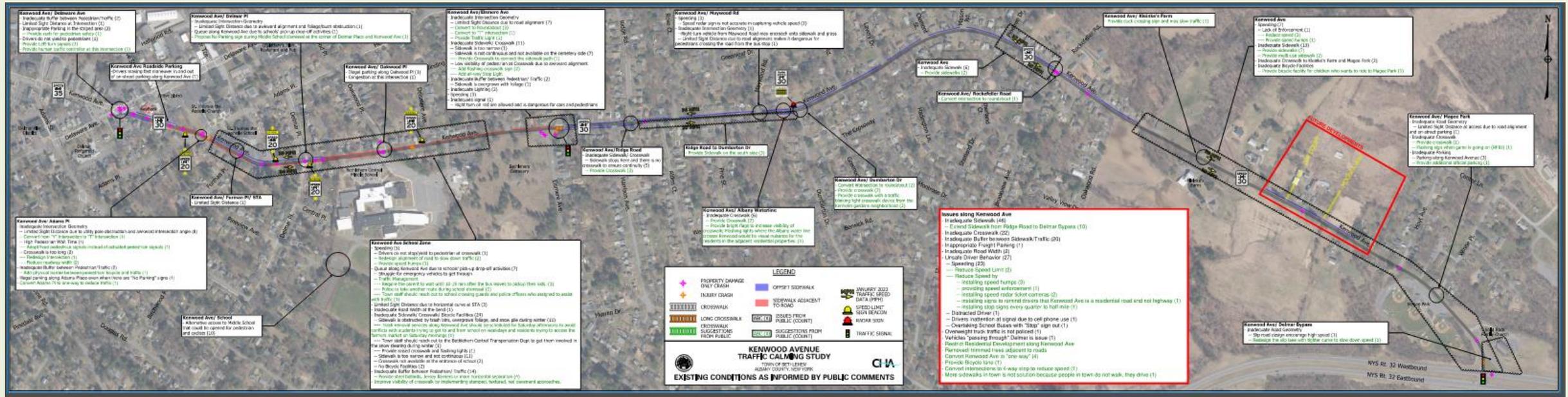
# PROJECT UPDATE / STATUS

- Existing Condition Studies were completed & evaluated
  - Traffic Study (including traffic counts, crash data, and speed study)
    - Speed Study: 85<sup>th</sup> percentile speed over 30 MPH speed limit, with speeds increasing from west to east (34 mph to 39 mph)
- Website created
  - [www.kenwoodavestudy.com](http://www.kenwoodavestudy.com)
- Public Workshop was held on April 6, 2023
- Public input received from:
  - Workshop roll plots and notes
  - Website Interactive Map
  - Public comment forms / direct emails
- Potential traffic calming and pedestrian safety measures have been developed



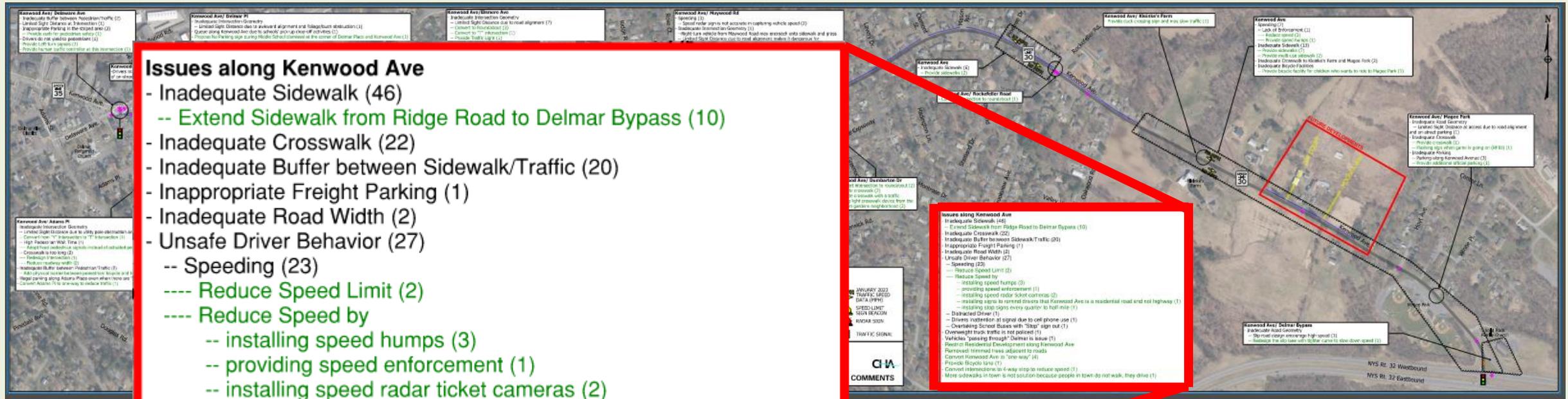
# PROJECT UPDATE / STATUS

- Public Comments have been reviewed and categorized:



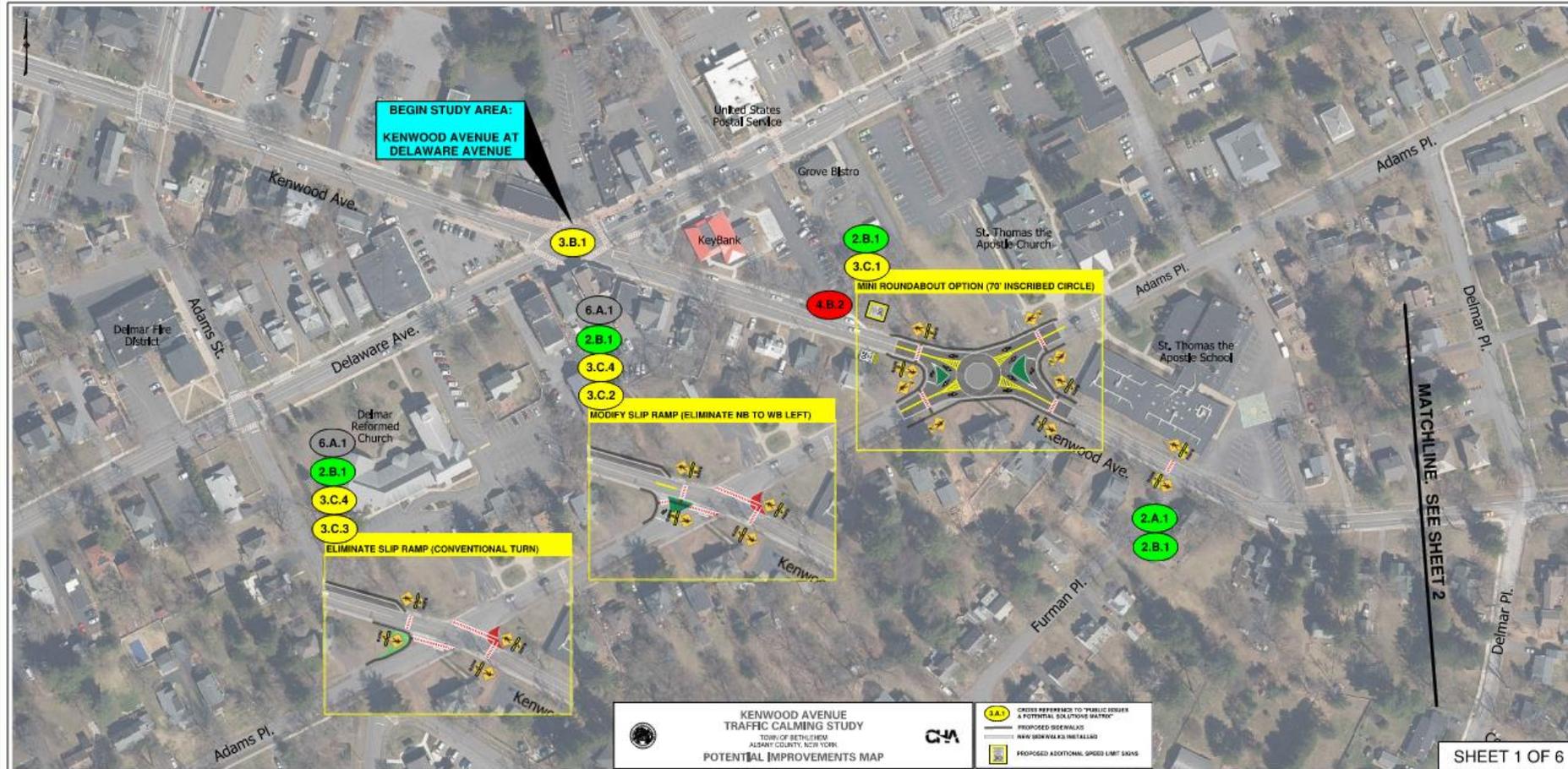
# PROJECT UPDATE / STATUS

- Public Comments have been reviewed and categorized:



# PROJECT UPDATE / STATUS

- Potential Traffic Calming and Pedestrian Safety Solutions have been developed:



# PROJECT UPDATE / STATUS

- Potential Traffic Calming and Pedestrian Safety Solutions have been developed:

| KENWOOD AVENUE<br>PUBLIC ISSUES & POTENTIAL SOLUTIONS MATRIX<br>DRAFT - October 10, 2023 |                                                          |     |                                                                                                             |                                                                                                                           |                                                                                                                                                                 |
|------------------------------------------------------------------------------------------|----------------------------------------------------------|-----|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISSUE IDENTIFIED                                                                         | SUB-ISSUE                                                | No. | POTENTIAL SOLUTION (TOWN / CHA)                                                                             | POTENTIAL SOLUTION (FROM PUBLIC COMMENTS)                                                                                 | DETAILS                                                                                                                                                         |
| 2 - Pedestrian Safety (Crosswalks)                                                       | B - Increase Visibility of Crosswalk                     | 1   | Provide RRFB equipment at select high pedestrian volume crosswalks.                                         |                                                                                                                           | - Adams Pl (School Zone)<br>- Delmar Pl (School Zone)<br>- Oakwood Pl (School Zone)<br>- Dumbarton Dr (Albany Waterline Path)<br>- Winne Pl (Magee Park)        |
|                                                                                          |                                                          | 2   | Provide pedestrian traffic signal midblock between Delmar Pl and Oakwood Pl at Middle School west entrance. |                                                                                                                           | Install conventional 3 color traffic signal or HAWK signal within school zone to allow protected crossing movement across Kenwood Ave.                          |
|                                                                                          |                                                          | 3   | High visibility red stamped crosswalk.                                                                      | Provide stamped, textured, red pavement approaches at school zone.                                                        | Provide red textured pavement treatment for all crosswalk                                                                                                       |
|                                                                                          |                                                          | 4   |                                                                                                             | Provide bright flags (see me flag) to increase visibility of crosswalk at Albany Waterline.                               | Provide bright flags (see me flags) at select crosswalks along Kenwood Ave.                                                                                     |
|                                                                                          |                                                          | 5   |                                                                                                             | Provide flashing beacon on pedestrian crossing sign (RFID-controlled) at the Magee Park Crosswalk when games are on site. |                                                                                                                                                                 |
|                                                                                          | A - General: Vegetation blocking intersection sightlines | 1   | Clean up / remove vegetation within ROW blocking sightlines.                                                |                                                                                                                           | Trim vegetation within intersection sightline. May require an easement to remove blocking vegetation if on private property.                                    |
|                                                                                          | B - Delaware Ave / Kenwood Ave                           | 1   |                                                                                                             | Provide exclusive left-turn signal phase for WB to SB movement.                                                           | Perform traffic study and analysis, and if warranted, modify traffic signal.                                                                                    |
|                                                                                          |                                                          | 1   | Construct "mini" roundabout with WB to NB and EB to SB slip ramps.                                          |                                                                                                                           | Use 70' inscribed circle diameter. Slip ramps at acute angles to accommodate school buses and fire trucks. Truck apron fully paved w/o raised landscape island. |
|                                                                                          |                                                          | 2   | Modify slip ramp in SW corner (eliminate NB to WB left turn movement through slip ramp).                    |                                                                                                                           | Construct physical island and restrict slip ramp to right turning EB to SB traffic only. Modify crosswalk locations                                             |
|                                                                                          |                                                          |     |                                                                                                             | Construct conventional intersection radius and remove                                                                     |                                                                                                                                                                 |

**Town of Bethlehem NY**

KENWOOD AVENUE  
TRAFFIC CALMING STUDY  
TOWN OF BETHLEHEM  
ALBANY COUNTY, NEW YORK  
POTENTIAL IMPROVEMENTS MAP

CROSS REFERENCE TO "PUBLIC DESIGN & POTENTIAL SOLUTIONS MATRIX"  
 PROPOSED SIGHTLINES  
 NEW SIDEWALK INSTALLATION  
 PROPOSED ADDITIONAL SPEED LIMIT SIGNS

SHEET 1 OF 6



# PROJECT UPDATE/STATUS

- Schedule:

| Tasks                                | 2022 |   |   | 2023 |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|------|---|---|------|---|---|---|---|---|---|---|---|---|---|---|
|                                      | O    | N | D | J    | F | M | A | M | J | J | A | S | O | N | D |
| Task 1: Initiation                   | █    | █ |   |      |   |   |   |   |   |   |   |   |   |   |   |
| Task 2: Existing Conditions          |      |   | █ | █    | █ | █ |   |   |   |   |   |   |   |   |   |
| Task 3: Public Involvement, Round 1  |      |   |   |      |   | █ | ★ |   |   |   |   |   |   |   |   |
| Task 4: Concepts and Recommendations |      |   |   |      |   |   |   | █ | █ | █ |   |   |   |   |   |
| Task 5: Public Involvement, Round 2  |      |   |   |      |   |   |   |   |   |   | █ | █ | █ | ★ |   |
| Task 6: Report and Implementation    |      |   |   |      |   |   |   |   |   |   |   |   |   | █ | █ |

# TONIGHT'S AGENDA

- Project Update/Status
- **Summary of Comments Received and Potential Proposed Solutions**
- Next Steps
- Open House



# TOWN & PUBLIC COMMENTS RECEIVED

Comments categorized into general areas of focus:

1. Pedestrian Safety - Sidewalks
2. Pedestrian Safety - Crosswalks
3. Intersection Improvements
4. Speed (Traffic Calming)
5. Bicycle Accommodations
6. Parking
7. Congestion
8. Other

# TOWN & PUBLIC COMMENTS RECEIVED

## 1. Pedestrian Safety – Sidewalks

- Sidewalks are not continuous



# TOWN & PUBLIC COMMENTS RECEIVED

## 1. Pedestrian Safety – Sidewalks

- Sidewalks are not continuous
  - Complete continuous sidewalks, both sides, between Delaware Ave and Elsmere Ave
  - Complete continuous sidewalk on north between Elsmere Ave. and Winne Pl.



# TOWN & PUBLIC COMMENTS RECEIVED

## 1. Pedestrian Safety – Sidewalks

- Sidewalks are not continuous
  - Complete continuous sidewalks, both sides, between Delaware Ave and Elsmere Ave
  - Complete continuous sidewalk on north between Elsmere Ave. and Winne Pl.
- Sidewalks are not wide enough



# TOWN & PUBLIC COMMENTS RECEIVED

## 1. Pedestrian Safety – Sidewalks

- Sidewalks are not continuous
  - Complete continuous sidewalks, both sides, between Delaware Ave and Elsmere Ave
  - Complete continuous sidewalk on north between Elsmere Ave. and Winne Pl.
- Sidewalks are not wide enough
  - **Replace narrow sidewalks with standard 5' wide (minimum) sidewalks**



# TOWN & PUBLIC COMMENTS RECEIVED

## 1. Pedestrian Safety – Sidewalks

- Sidewalks are not continuous
  - Complete continuous sidewalks, both sides, between Delaware Ave and Elsmere Ave
  - Complete continuous sidewalk on north between Elsmere Ave. and Winne Pl.
- Sidewalks are not wide enough
  - Replace narrow sidewalks with standard 5' wide (minimum) sidewalks
  - **Widen sidewalks in school zone**



# TOWN & PUBLIC COMMENTS RECEIVED

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  - Complete continuous sidewalk on north between Elsmere Ave. and Winne Pl.
- Sidewalks are not wide enough
  - Replace narrow sidewalks with standard 5' wide (minimum) sidewalks
  - Widen sidewalks in school zone
- Lack of buffer space between sidewalk and roadway



# TOWN & PUBLIC COMMENTS RECEIVED

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  - Complete continuous sidewalks, both sides, between Delaware Ave and Elsmere Ave
  - Complete continuous sidewalk on north between Elsmere Ave. and Winne Pl.
- Sidewalks are not wide enough
  - Replace narrow sidewalks with standard 5' wide (minimum) sidewalks
  - Widen sidewalks in school zone
- Lack of buffer space between sidewalk and roadway
  - 2' to 3' buffer is curbed areas, 5' to 8' in non-curbed areas
  - Install wide white edge stripe adjacent to curb



# TOWN & PUBLIC COMMENTS RECEIVED

## 2. Pedestrian Safety – Crosswalks

- Insufficient number of safe crossing opportunities



# TOWN & PUBLIC COMMENTS RECEIVED

## 2. Pedestrian Safety – Crosswalks

- Insufficient number of safe crossing opportunities
  - **Install crosswalks at side streets to connect to sidewalk**



# TOWN & PUBLIC COMMENTS RECEIVED

## 2. Pedestrian Safety – Crosswalks

- Insufficient number of safe crossing opportunities
  - Install crosswalks at side streets to connect to sidewalk
- Increase visibility of Crosswalks



# TOWN & PUBLIC COMMENTS RECEIVED

## 2. Pedestrian Safety – Crosswalks

- Insufficient number of safe crossing opportunities
  - Install crosswalks at side streets to connect to sidewalk
- Increase visibility of Crosswalks
  - Install RRFB signals at crosswalks



# TOWN & PUBLIC COMMENTS RECEIVED

## 2. Pedestrian Safety – Crosswalks

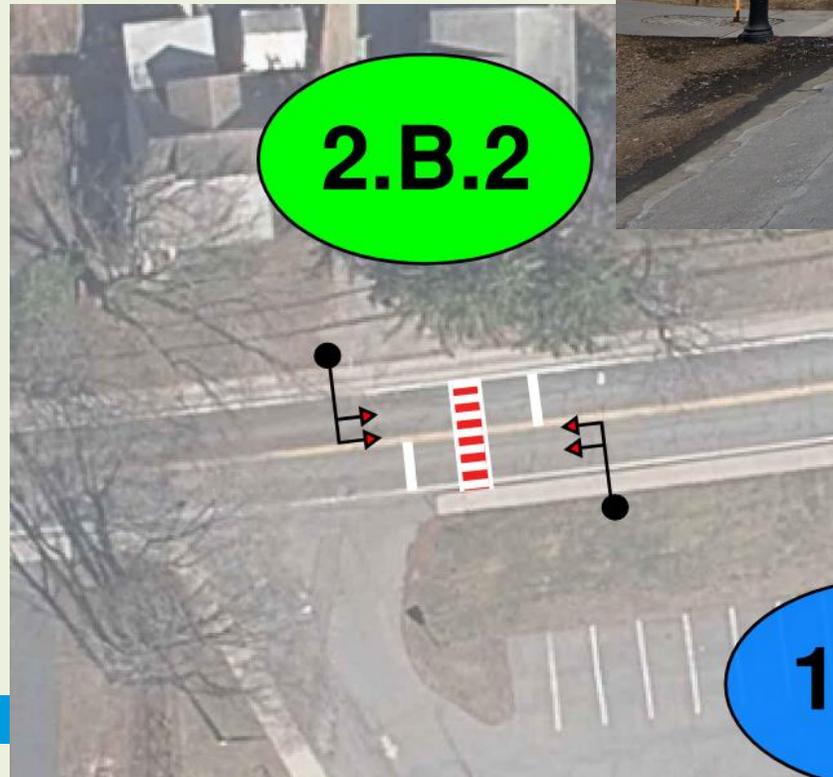
- Insufficient number of safe crossing opportunities
  - Install crosswalks at side streets to connect to sidewalk
- Increase visibility of Crosswalks
  - Install RRFB signals at crosswalks
  - **Crosswalks to be high-visibility markings with red stamped inlay**



# TOWN & PUBLIC COMMENTS RECEIVED

## 2. Pedestrian Safety – Crosswalks

- Insufficient number of safe crossing opportunities
  - Install crosswalks at side streets to connect to sidewalk
- Increase visibility of Crosswalks
  - Install RRFB signals at crosswalks
  - Crosswalks to be high-visibility markings with red stamped inlay
  - Install Pedestrian traffic signal between Delmar Pl. and Middle School



# TOWN & PUBLIC COMMENTS RECEIVED

## 2. Pedestrian Safety – Crosswalks

- Insufficient number of safe crossing opportunities
  - Install crosswalks at side streets to connect to sidewalk
- Increase visibility of Crosswalks
  - Install RRFB signals at crosswalks
  - Crosswalks to be high-visibility markings with red stamped inlay
  - Install Pedestrian traffic signal between Delmar Pl. and Middle School
  - See-Me Flags



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Poor intersection sight lines



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Poor intersection sight lines
  - Remove vegetation blocking sightlines
  - Relocate National Grid utility poles that block sightlines



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

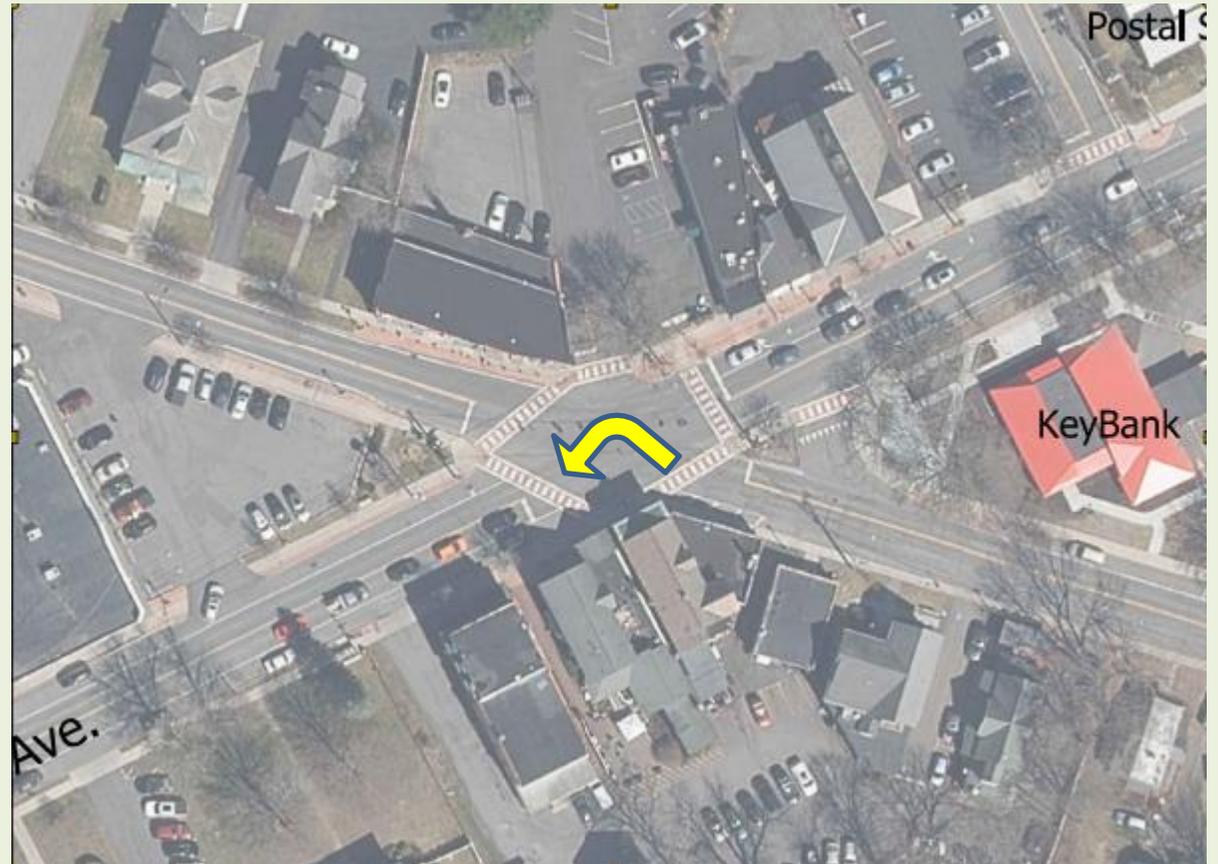
- Delaware Avenue specific
  - Lacks WB to SB signal phase



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Delaware Avenue specific
  - Lacks WB to SB signal phase
    - Perform traffic study and signal analysis
    - Modify traffic signal to include exclusive left turn phase



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

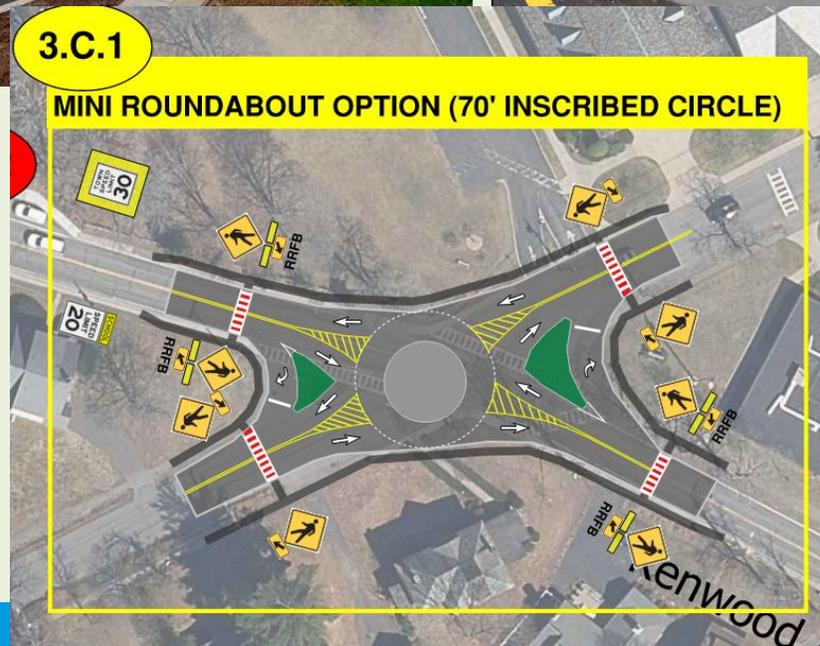
- Adams Place specific
  - Difficult intersection for pedestrians
  - Crosswalks too long
  - Awkward Slip Ramp movement



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

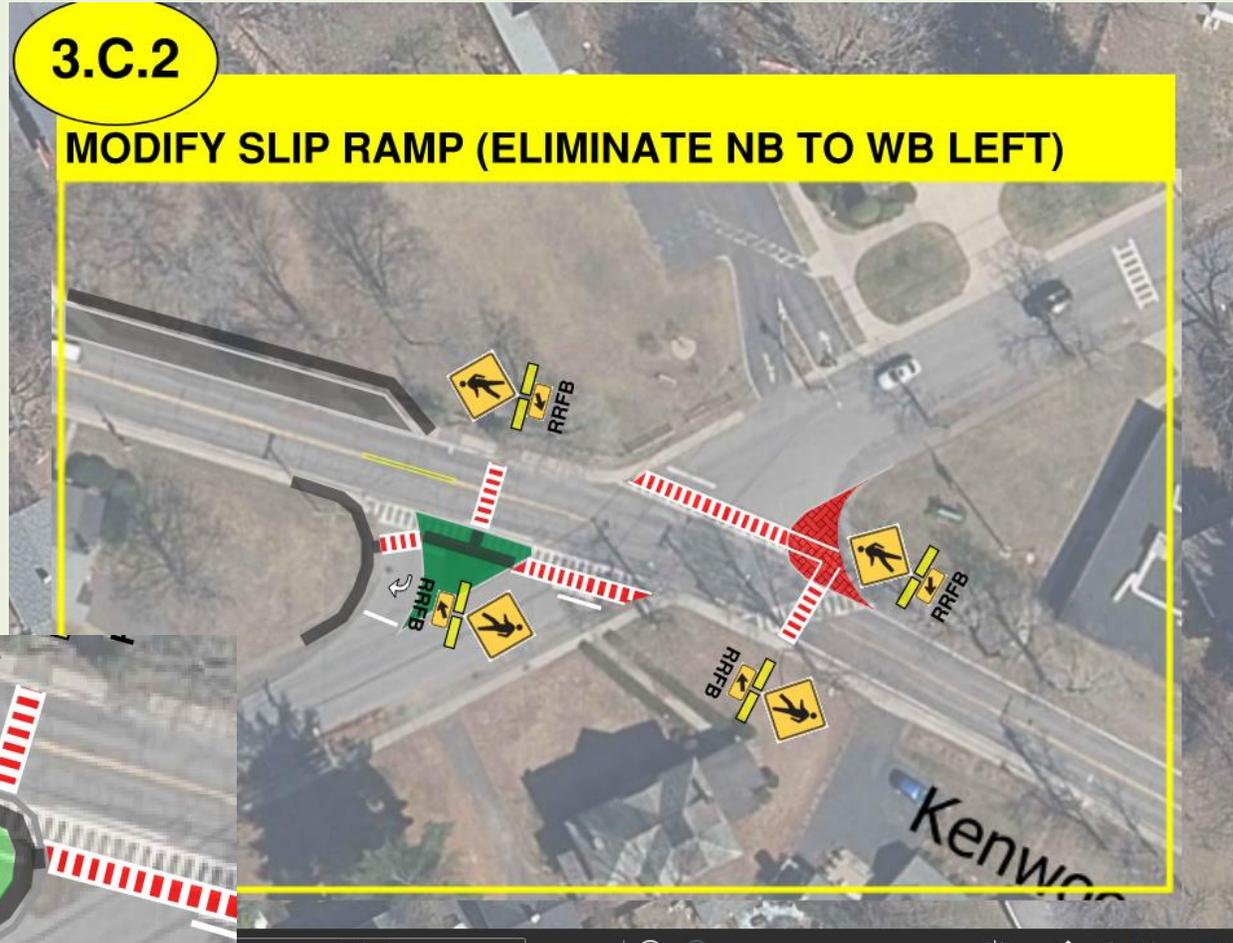
- Adams Place specific
  - Difficult intersection for pedestrians
  - Crosswalks too long
  - Awkward Slip Ramp movement
    - Option: Mini Roundabout



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

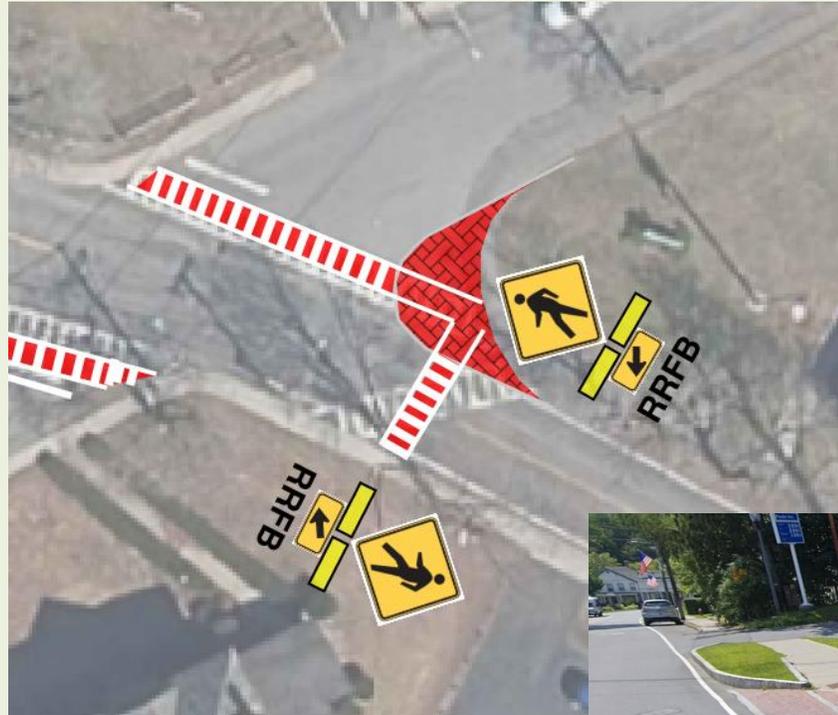
- Adams Place specific
  - Difficult intersection for pedestrians
  - Crosswalks too long
  - Awkward Slip Ramp movement
    - Option: Mini Roundabout
    - Option: **Modify slip ramp for only right turns from Kenwood or remove entirely**



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

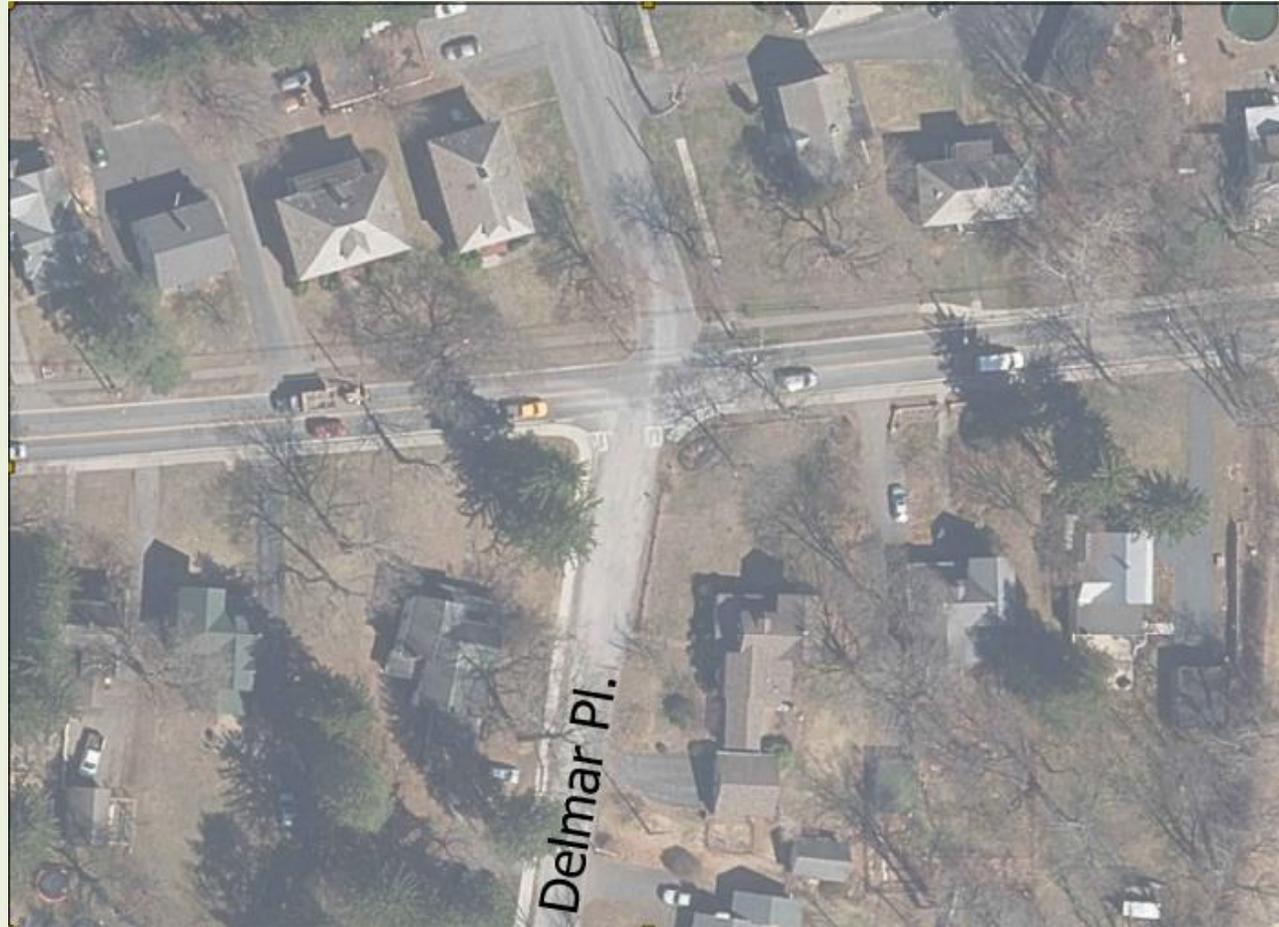
- Adams Place specific
  - Difficult intersection for pedestrians
  - Crosswalks too long
  - Awkward Slip Ramp movement
    - Option: Mini Roundabout
    - Option: Modify slip ramp for only right turns from Kenwood or remove entirely
    - Option: Construct Truck Apron to shorten crossing and remove skewed crosswalk



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Delmar Place specific
  - Pedestrian Crossings
  - Traffic Calming
  - Sight distance

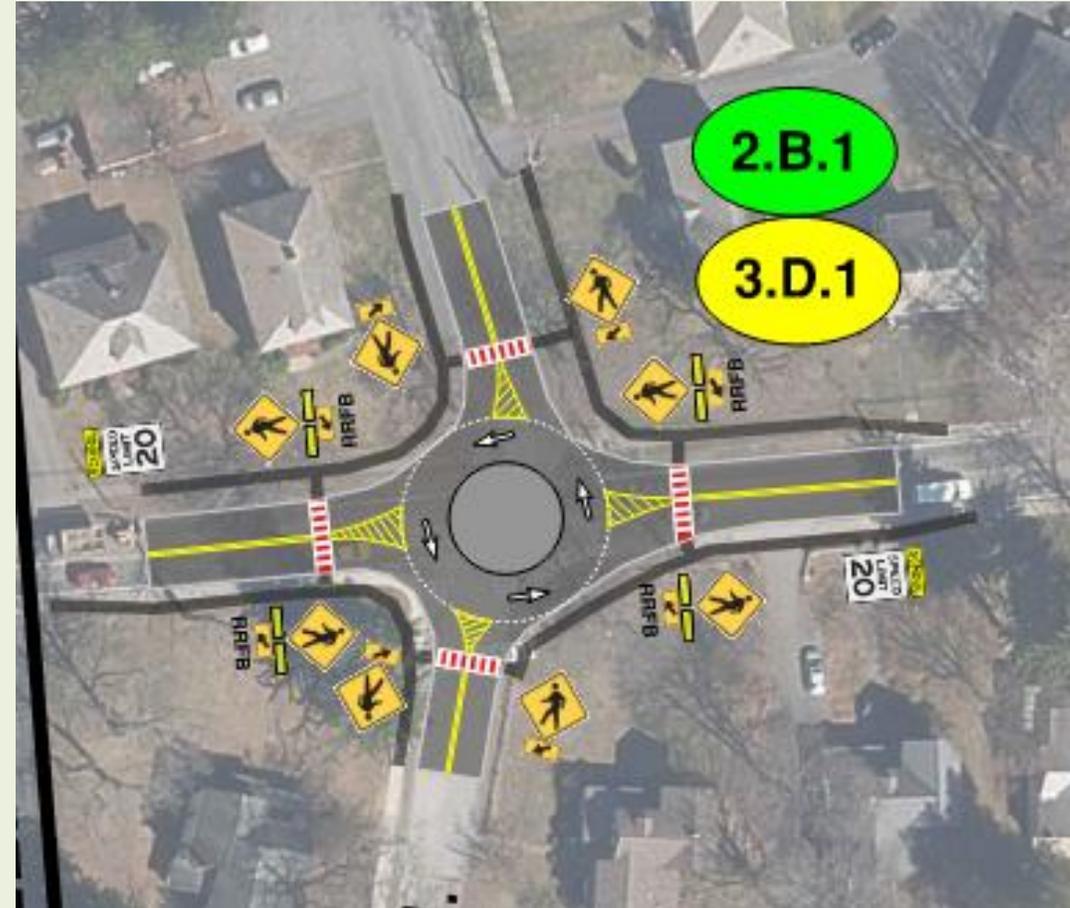


# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Delmar Place specific
  - Pedestrian Crossings
  - Traffic Calming
  - Sight distance

➤ Option: Mini Roundabout



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

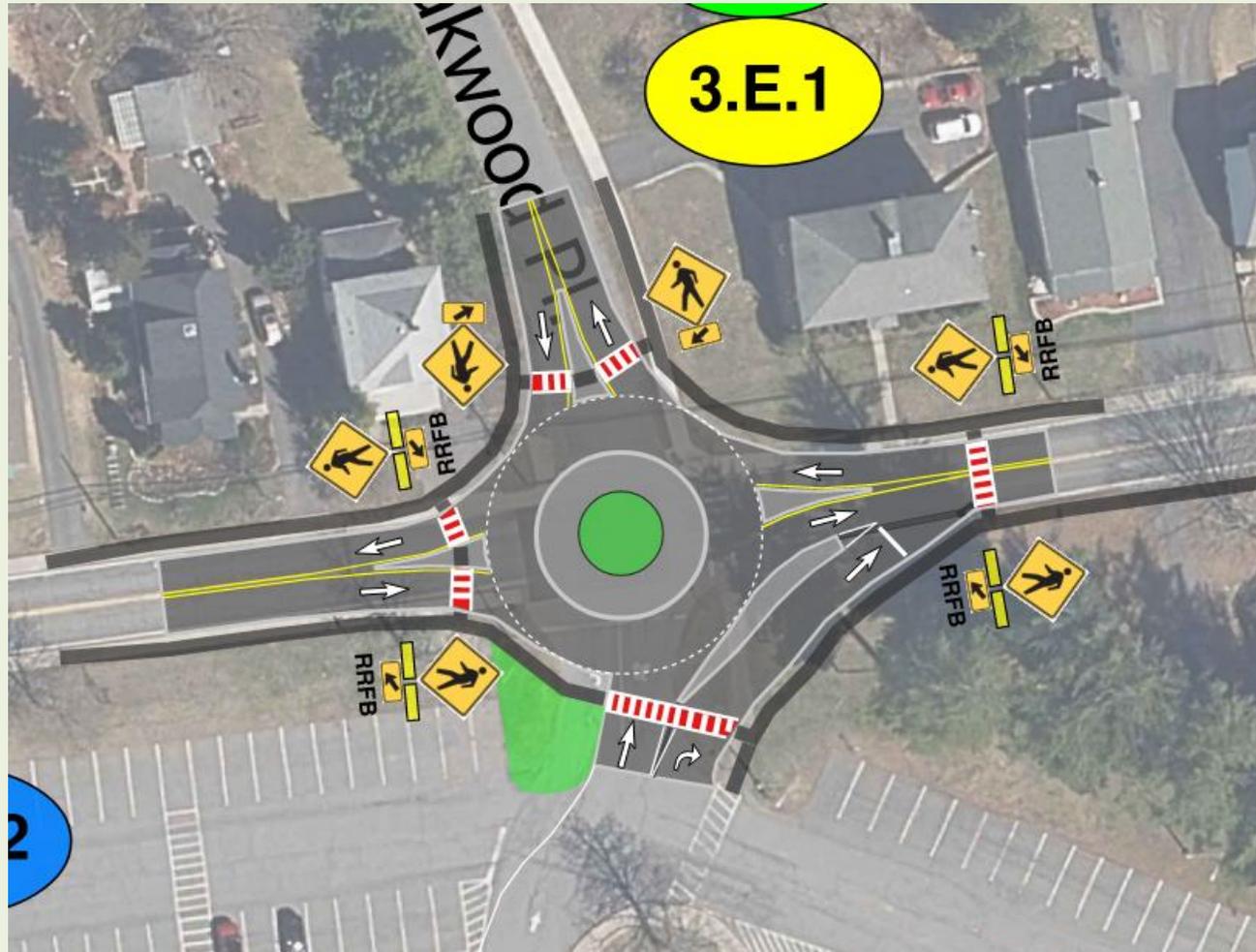
- Oakwood Place specific
  - Pedestrian Crossings
  - Traffic Calming
  - Intersection Congestion



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Oakwood Place specific
  - Pedestrian Crossings
  - Traffic Calming
  - Intersection Congestion
    - Option: Small Single Lane Roundabout



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

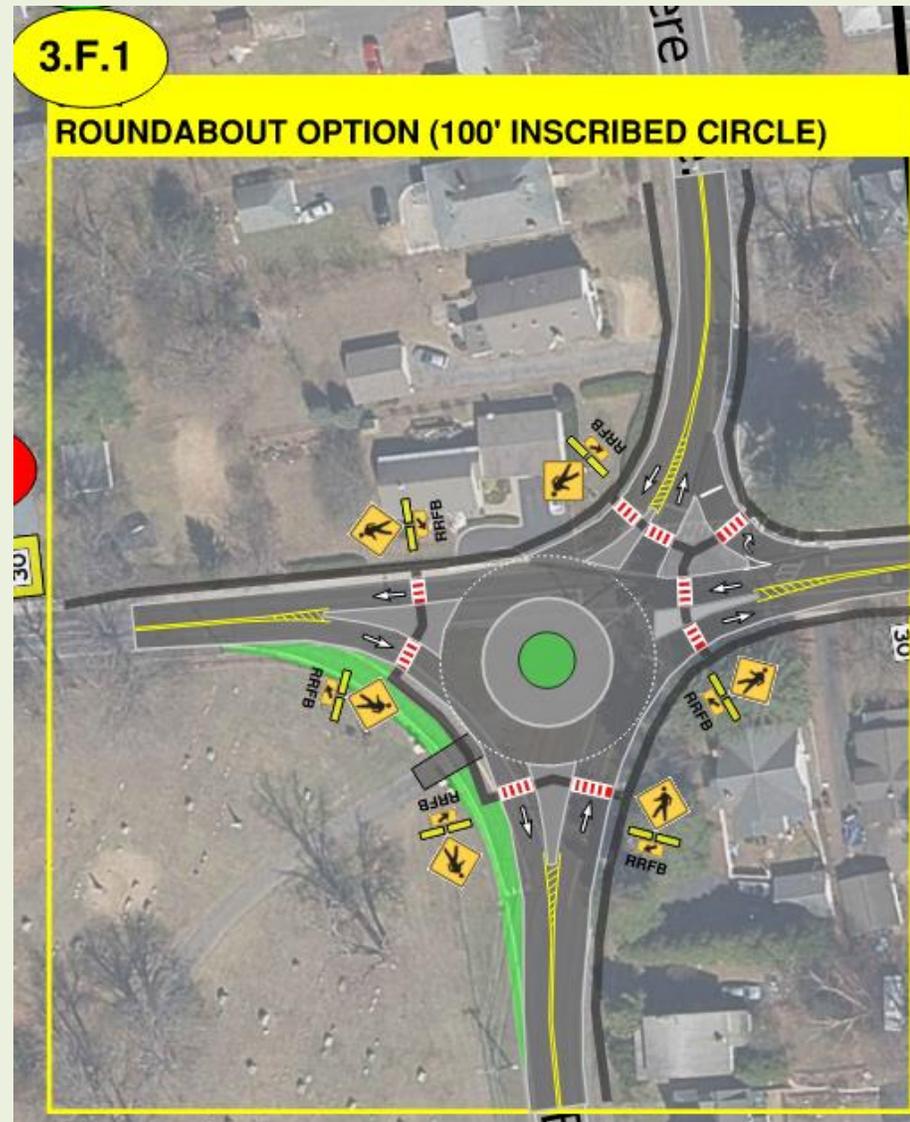
- Elsmere Ave specific
  - Awkward Intersection
  - Slip Ramp
  - Sight Distance
  - Traffic Calming
  - Pedestrian Crossing



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Elsmere Ave specific
  - Awkward Intersection
  - Slip Ramp
  - Sight Distance
  - Traffic Calming
  - Pedestrian Crossing
    - **Option: Small Single Lane Roundabout**



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Elsmere Ave specific
  - Awkward Intersection
  - Slip Ramp
  - Sight Distance
  - Traffic Calming
  - Pedestrian Crossing
    - Option: Small Single Lane Roundabout
    - Option: Eliminate Slip Ramp



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

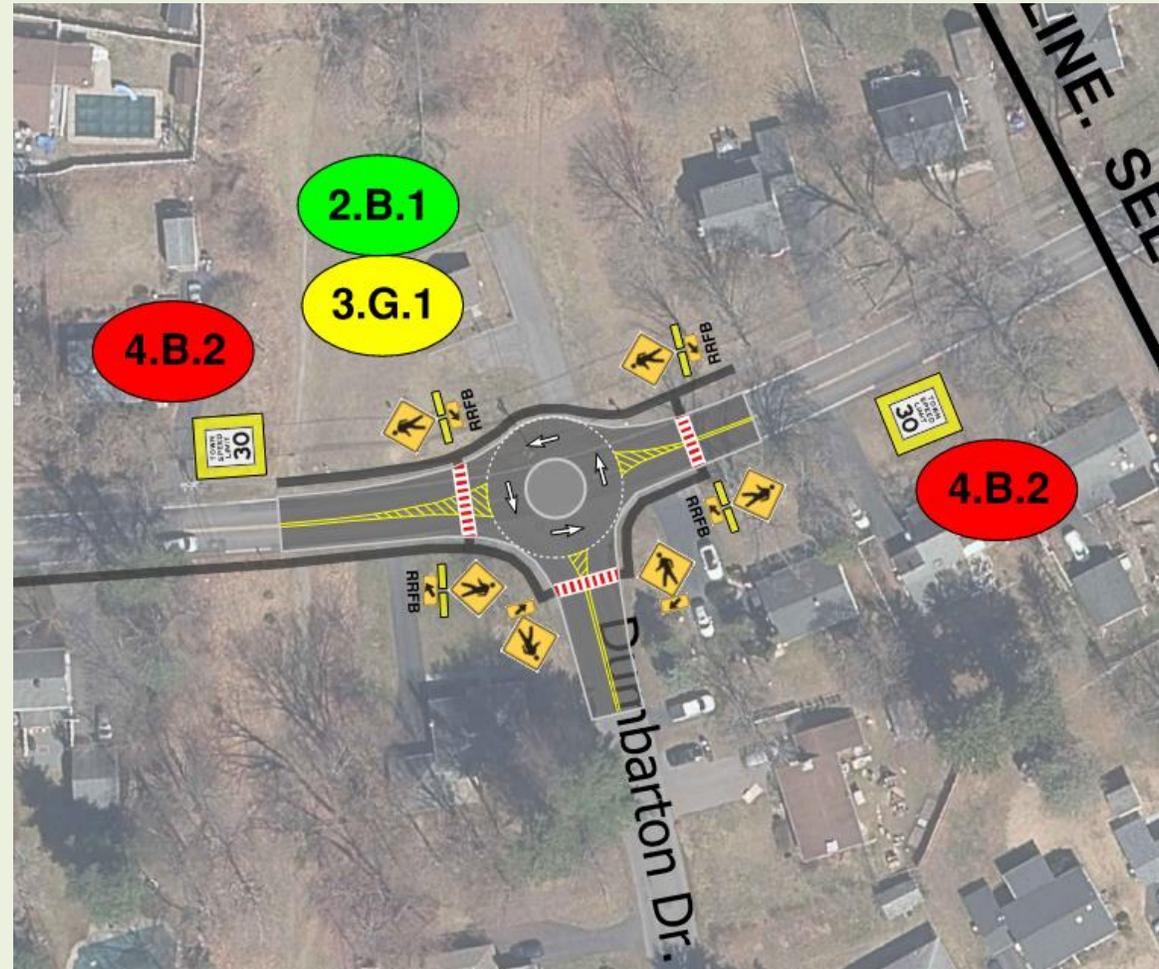
- Dumbarton Drive specific
  - Pedestrian Crossing
  - Traffic Calming



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Dumbarton Drive specific
  - Pedestrian Crossing
  - Traffic Calming
    - Option: Mini Roundabout



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

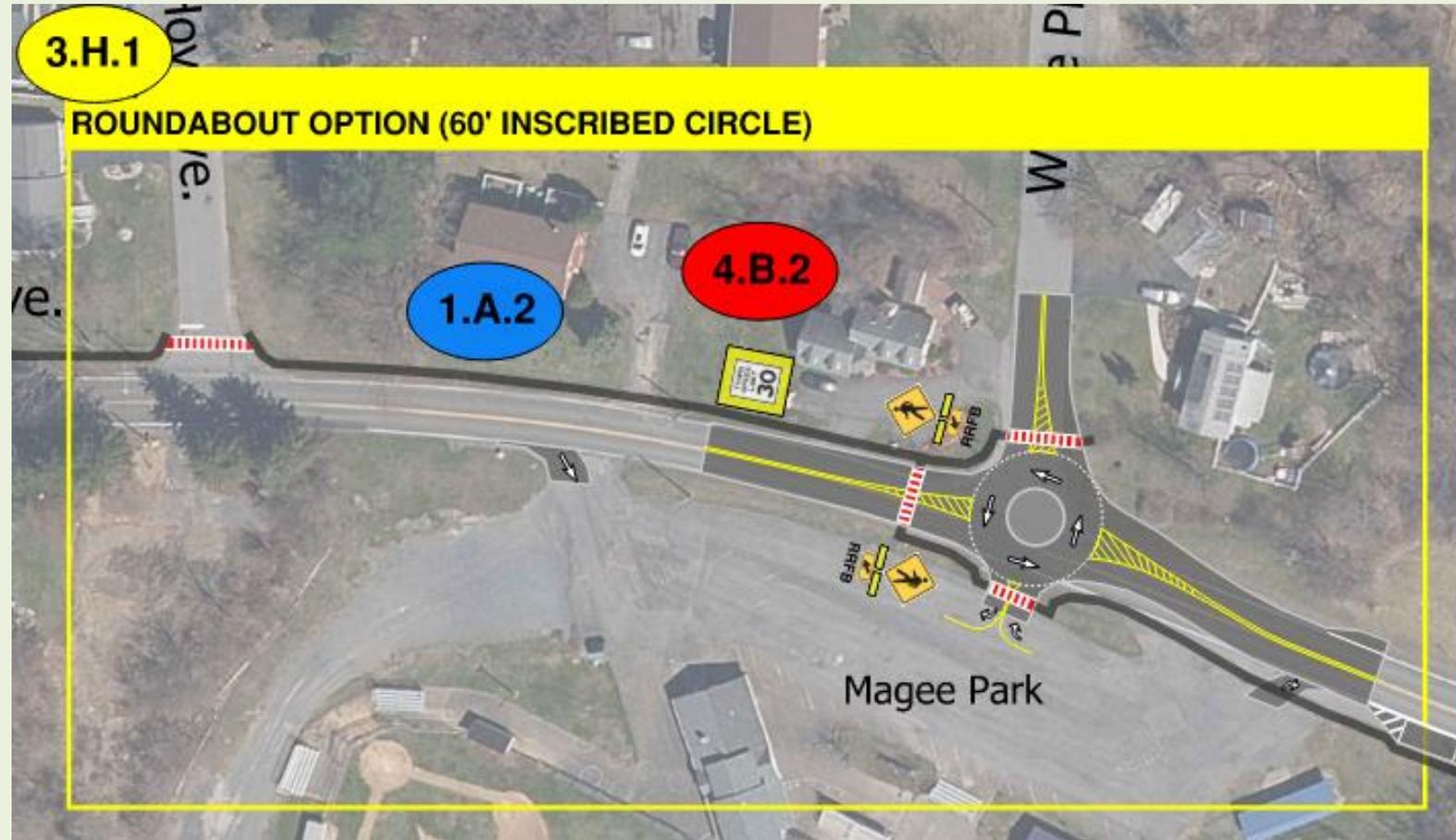
- Winne Place specific
  - Pedestrian Accommodations
  - Pedestrian Crossing
  - Improvements tied to Magee Park
  - Traffic Calming



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

- Winne Place specific
  - Pedestrian Accommodations
  - Pedestrian Crossing
  - Improvements tied to Magee Park
  - Traffic Calming
    - **Option: Mini Roundabout**



# TOWN & PUBLIC COMMENTS RECEIVED

## 3. Intersection Improvements

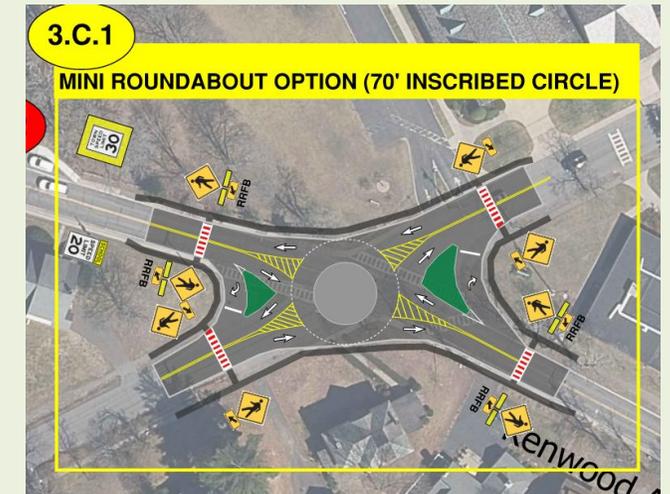
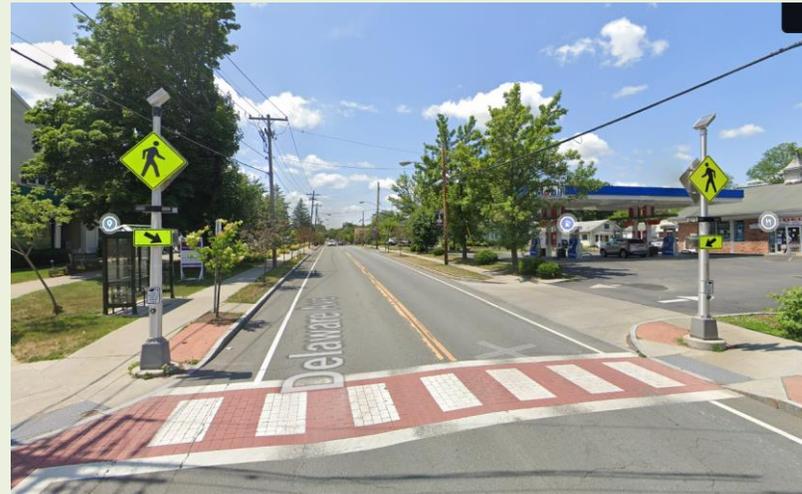
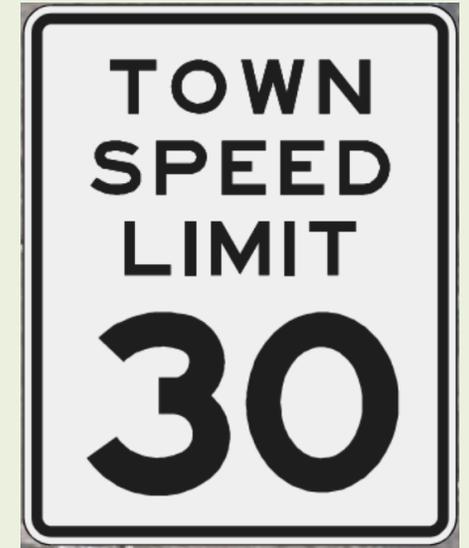
- Winne Place specific
  - Pedestrian Accommodations
  - Pedestrian Crossing
  - Improvements tied to Magee Park
  - Traffic Calming
    - Option: Mini Roundabout
    - Option: Crosswalks with RRFB



# TOWN & PUBLIC COMMENTS RECEIVED

## 4. Speed (Traffic Calming)

- Physical Features
  - Crosswalks (previously discussed)
  - RRFB signals (previously discussed)
  - Intersection Improvements (previously discussed)



# TOWN & PUBLIC COMMENTS RECEIVED

## 4. Speed (Traffic Calming)

- Physical Features

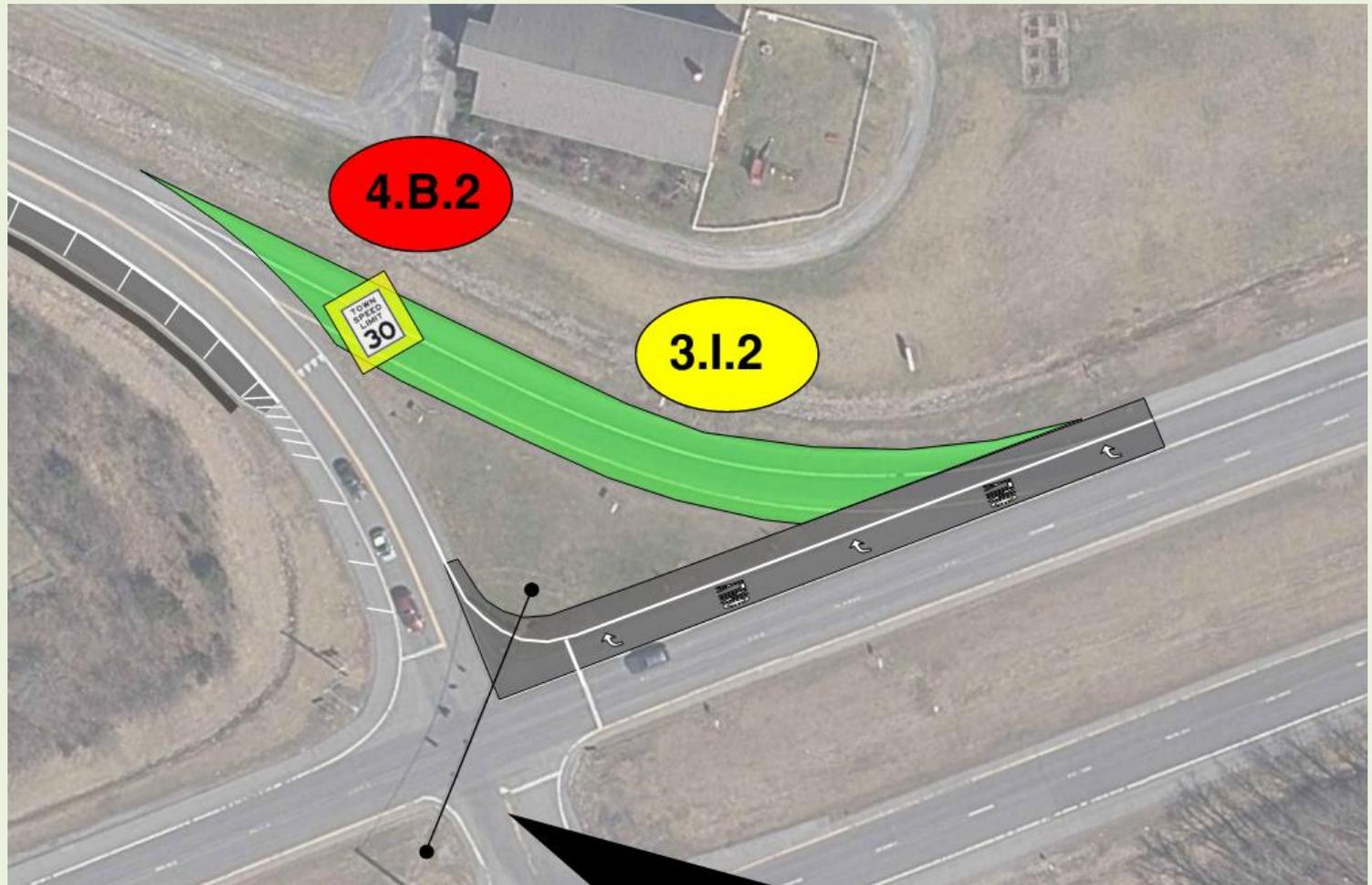
- Crosswalks (previously discussed)
- RRFB signals (previously discussed)
- Intersection Improvements (previously discussed)
- **Raised Median (roadway deflection)**



# TOWN & PUBLIC COMMENTS RECEIVED

## 4. Speed (Traffic Calming)

- Physical Features
  - Crosswalks (previously discussed)
  - RRFB signals (previously discussed)
  - Intersection Improvements (previously discussed)
  - Raised Median (roadway deflection)
  - Eliminate slip ramp from By-pass (like Bender Ln, Elsmere Ave, Murray Ave)



# TOWN & PUBLIC COMMENTS RECEIVED

## 4. Speed (Traffic Calming)

- Physical Features
  - Crosswalks (previously discussed)
  - RRFB signals (previously discussed)
  - Intersection Improvements (previously discussed)
  - Raised Median (roadway deflection)
  - Eliminate slip ramp from By-pass
- Signage
  - **Radar Speed Control Signs**
  - **Increase frequency of Speed Limit signs**
- Enforcement



# TOWN & PUBLIC COMMENTS RECEIVED

## 5. Bicycle Accommodations

- On Road
  - Sharrow pavement markings
  - “Share the Road” signs



# TOWN & PUBLIC COMMENTS RECEIVED

## 5. Bicycle Accommodations

- On Road
  - Sharrows
  - “Share the Road” signs
  - **Widen Shoulders (long range solution)**



# TOWN & PUBLIC COMMENTS RECEIVED

## 5. Bicycle Accommodations

- On Road
  - Sharrows
  - “Share the Road” signs
  - Widen Shoulders (long range solution)
- Multi-use Path
  - Replace sidewalk with shared-use path / side path (long range solution)



# TOWN & PUBLIC COMMENTS RECEIVED

## 6. Parking

- Inadequate Parking Spaces (near Delaware Ave)



# TOWN & PUBLIC COMMENTS RECEIVED

## 6. Parking

- Inadequate Parking Spaces (near Delaware Ave)
  - Extend existing parking lane (WB)



# TOWN & PUBLIC COMMENTS RECEIVED

## 6. Parking

- Inadequate Parking Spaces (near Delaware Ave)
  - Extend existing parking lane (WB)
- Inadequate Parking at Magee Park
- Parking at Magee Park obstructs sight distance



# TOWN & PUBLIC COMMENTS RECEIVED

## 6. Parking

- Inadequate Parking Spaces (near Delaware Ave)
  - Extend existing parking lane (WB)
- Inadequate Parking at Magee Park
- Parking at Magee Park obstructs sight distance
  - Formally define parking lane eastbound, east of Magee Park. Combine with sidewalk to Magee Park.



# TOWN & PUBLIC COMMENTS RECEIVED

## 7. Congestion

- Queuing at Middle School

## 8. Other

- Rear access at Middle School
- Lack of space on roadway to accommodate all users

|                |                                                                                         |   |                                                                |                                                                                              |
|----------------|-----------------------------------------------------------------------------------------|---|----------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 7 - Congestion | A - Queuing along Kenwood Ave in School Zone                                            | 1 |                                                                | "No Parking" sign during Middle School dismissal at the corner of Delmar Pl and Kenwood Ave. |
| 8 - Other      | A - Rear Access to Bethlehem Middle School                                              | 1 | Evaluate Pineview Ave. and Central Pl. entrance opportunities. | Open/unchain the rear tennis court gate at the end of Pineview Ave.                          |
|                | B - Lack of space to accommodate different road users (e.g., cyclist, pedestrian, etc.) | 1 |                                                                | Convert Kenwood Ave to "one-way" flow between Delaware and Elsmere.                          |

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- Project Update/Status
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- **Next Steps**
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## Next Steps:

# PROJECT UPDATE / STATUS

- Hold Public Meeting #2 (tonight)
  - Present Draft Conceptual Plans / Recommendations
  - Open House Discussions
  - Receive Final Comments (by Sunday October 29)
    - [www.kenwoodavestudy.com](http://www.kenwoodavestudy.com)
    - Comment Forms
- Summarize Project Results in Final Report
- Town-funded Projects (“Low-Hanging Fruit”)
  - Signing additions & Striping improvements
  - Additional Sidewalks
  - Crosswalks installations (W/ Detectable Warnings)
- Capital Projects (state & federal funding)
  - Intersection reconfigurations
  - Roadway widening



# PROJECT UPDATE / STATUS

## Town-funded Improvements Already Implemented



Crosswalks @ Dumbarton Dr & Waterline



Sidewalks – Oakwood Pl to Elsmere Ave



Crossing Pad @ Brookview Ave



Sidewalk w/ Shrubs Trimmed



Curb Ramps with Detectable Warning Pads



Speed Radar Warning Device

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